CRF Errors Corrected by the STIC System Branch

Serial Number: 10/003,796

CRF Processing Date: 3-13-2002

Edited by: M. SPENCER

Verified by: _____ (STIC staff)

311

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically:

ENTERED

_____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:

_____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

_____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included:

_____

☐ Deleted extra, invalid, headings used by an applicant, specifically:

_____

☑ Deleted: ☑ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____.

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically:

_____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically:

_____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other:

_____

_____

_____

_____

*Examiner: Th above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

OIPE

RAW SEQUENCE LISTING DATE: 03/13/2002
PATENT APPLICATION: US/10/003,496 TIME: 10:30:07

Input Set : A:\PTO_MS.txt
Output Set: N:\CRF3\03132002\J003496.raw

```
      3 <110> APPLICANT: Maxygen ApS
      4       Maxygen Holdings Ltd.
      6 <120> TITLE OF INVENTION: Single-Chain Polypeptides
      8 <130> FILE REFERENCE: 0218us210
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/003,496
C--> 10 <141> CURRENT FILING DATE: 2002-01-31
     10 <150> PRIOR APPLICATION NUMBER: US 60/245,727
     11 <151> PRIOR FILING DATE: 2000-11-02
     13 <160> NUMBER OF SEQ ID NOS: 16
     15 <170> SOFTWARE: PatentIn version 3.1
     17 <210> SEQ ID NO: 1
     18 <211> LENGTH: 174
     19 <212> TYPE: PRT
     20 <213> ORGANISM: Homo sapiens
     22 <400> SEQUENCE: 1
     24 Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys
     25 1               5                  10                  15
     28 Cys Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln
     29             20                  25                  30
     32 Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val
     33         35                  40                  45
     36 Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys
     37     50                  55                  60
     40 Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser
     41 65                  70                  75                  80
     44 Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser
     45                 85                  90                  95
     48 Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp
     49             100                 105                 110
     52 Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro
     53         115                 120                 125
     56 Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe
     57     130                 135                 140
     60 Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe
     61 145                 150                 155                 160
     64 Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro
     65                 165                 170
     68 <210> SEQ ID NO: 2
     69 <211> LENGTH: 63
     70 <212> TYPE: DNA
     71 <213> ORGANISM: Saccharomyces cerevisiae
     73 <400> SEQUENCE: 2
     74 atgaaattga aaactgttag atctgctgtt ttgtcttctt tgtttgcttc tcaagttttg     60
```

RAW SEQUENCE LISTING DATE: 03/13/2002
PATENT APPLICATION: US/10/003,496 TIME: 10:30:07

Input Set : A:\PTO_MS.txt
Output Set: N:\CRF3\03132002\J003496.raw

ggt 63

<210> SEQ ID NO: 3
<211> LENGTH: 126
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: leader sequence
<400> SEQUENCE: 3
caaccaattg atgatactga atctcaaact acttctgtta atttgatggc tgatgatact 60
gaatctgctt ttgctactca aactaattct ggtggtttgg atgttgttgg tttgatatcg 120
atggcc 126

<210> SEQ ID NO: 4
<211> LENGTH: 522
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: DNA encoding G-CSF copy 1 in the single chain G-CSF dimer
<400> SEQUENCE: 4
actccattgg gtccagcttc ttctttgcca caatcttttt tgttgaaatg tttggaacaa 60
gttagaaaaa ttcaaggtga tggtgctgct ttgcaagaaa aattgtgtgc tacttataaa 120
ttgtgtcatc cagaagaatt ggttttgttg ggtcattctt tgggtattcc atgggctcca 180
ttgtcttctt gtccatctca agctttgcaa ttggctggtt gtttgtctca attgcattct 240
ggtttgtttt tgtatcaagg tttgttgcaa gctttggaag gtatttctcc agaattgggt 300
ccaactttgg atactttgca attggatgtt gctgattttg ctactactat ttggcaacaa 360
atggaagaat tgggtatggc tccagctttg caaccaactc aaggtgctat gccagctttt 420
gcttctgctt ttcaaagaag agctggtggt gttttggttg cttctcattt gcaatctttt 480
ttggaagttt cttatagagt tttgagacat ttggctcaac ca 522

<210> SEQ ID NO: 5
<211> LENGTH: 531
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: DNA encoding G-CSF copy 2 in the single chain G-CSF dimer
<400> SEQUENCE: 5
acccctctgg gcccggccag cagtctgcct cagagttttt tactgaaatg cttagaacag 60
gtgcgtaaaa tccagggcga tggcgcggcc ctgcaggaaa aactgtgcgc gacctataaa 120
ctgtgccatc ctgaagaact ggtcctgtta ggccatagct taggcatccc gtgggcgcct 180
ctgagtagct gcccgagtca ggccctgcag ctggccggct gcctgagtca gttacatagt 240
ggcttatttt tatatcaggg cttactgcag gcgttagaag gcattagtcc ggaactgggc 300
ccgaccctgg ataccttaca gttagatgtc gcggattttg ccaccaccat ttggcagcag 360
atggaagaat taggcatggc gcctgcgtta cagcctaccc agggcgccat gcctgcgttt 420
gcgagtgcgt ttcagcgtcg cgccggcggc gtgttagtgg ccagccatct gcagagcttt 480
ctggaagtga gttatcgtgt gttacgccat ctggcccagc cttaatctag a 531

<210> SEQ ID NO: 6
<211> LENGTH: 348
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Single chain G-CSF dimer polypeptide

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PATENT APPLICATION: US/10/003,496 TIME: 10:30:07

Input Set : A:\PTO_MS.txt
Output Set: N:\CRF3\03132002\J003496.raw

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159 <400> SEQUENCE: 6
161 Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys
162 1               5                   10                  15
165 Cys Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln
166             20                  25                  30
169 Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val
170         35                  40                  45
173 Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys
174     50                  55                  60
177 Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser
178 65                  70                  75                  80
181 Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser
182                 85                  90                  95
185 Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp
186             100                 105                 110
189 Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro
190         115                 120                 125
193 Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe
194     130                 135                 140
197 Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe
198 145                 150                 155                 160
201 Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro
202                 165                 170                 175
205 Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu
206             180                 185                 190
209 Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys
210         195                 200                 205
213 Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu
214     210                 215                 220
217 Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser
218 225                 230                 235                 240
221 Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu
222                 245                 250                 255
225 Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu
226             260                 265                 270
229 Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala
230         275                 280                 285
233 Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu
234     290                 295                 300
237 Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg
238 305                 310                 315                 320
241 Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu
242                 325                 330                 335
245 Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro
246             340                 345
249 <210> SEQ ID NO: 7
250 <211> LENGTH: 90
251 <212> TYPE: DNA
252 <213> ORGANISM: Homo sapiens
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Input Set : A:\PTO_MS.txt
Output Set: N:\CRF3\03132002\J003496.raw

254 <400> SEQUENCE: 7
255 atggctggac ctgccaccca gagccccatg aagctgatgg ccctgcagct gctgctgtgg 60
257 cacagtgcac tctggacagt gcaggaagcc 90
260 <210> SEQ ID NO: 8
261 <211> LENGTH: 522
262 <212> TYPE: DNA
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: DNA encoding single-chain G-CSF copy 1 (codon usage optimized for
267 expression in CHO cells)
269 <400> SEQUENCE: 8
270 actccattgg gtccagcttc ttctttgcca caatcttttt tgttgaaatg tttggaacaa 60
272 gttagaaaaa ttcaaggtga tggtgctgct ttgcaagaaa aattgtgtgc tacttataaa 120
274 ttgtgtcatc cagaagaatt ggttttgttg ggtcattctt tgggtattcc atgggctcca 180
276 ttgtcttctt gtccatctca agctttgcaa ttggctggtt gtttgtctca attgcattct 240
278 ggtttgtttt tgtatcaagg tttgttgcaa gctttggaag gtatttctcc agaattgggt 300
280 ccaactttgg atactttgca attggatgtt gctgattttg ctactactat ttggcaacaa 360
282 atggaagaat tgggtatggc tccagctttg caaccaactc aaggtgctat gccagctttt 420
284 gcttctgctt ttcaaagaag agctggtggt gttttggttg cttctcattt gcaatctttt 480
286 ttggaagttt cttatagagt tttgagacat ttggctcaac ca 522
289 <210> SEQ ID NO: 9
290 <211> LENGTH: 6
291 <212> TYPE: PRT
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: tag
297 <400> SEQUENCE: 9
299 His His His His His His
300 1 5
303 <210> SEQ ID NO: 10
304 <211> LENGTH: 8
305 <212> TYPE: PRT
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: tag
311 <400> SEQUENCE: 10
313 Met Lys His His His His His His
314 1 5
317 <210> SEQ ID NO: 11
318 <211> LENGTH: 10
319 <212> TYPE: PRT
320 <213> ORGANISM: Artificial Sequence
322 <220> FEATURE:
323 <223> OTHER INFORMATION: tag
325 <400> SEQUENCE: 11
327 Met Lys His His Ala His His Gln His His
328 1 5 10
331 <210> SEQ ID NO: 12
332 <211> LENGTH: 14

RAW SEQUENCE LISTING DATE: 03/13/2002
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Input Set : A:\PTO_MS.txt
Output Set: N:\CRF3\03132002\J003496.raw

```
333 <212> TYPE: PRT
334 <213> ORGANISM: Artificial Sequence
336 <220> FEATURE:
337 <223> OTHER INFORMATION: tag
339 <400> SEQUENCE: 12
341 Met Lys His Gln His Gln His Gln His Gln His Gln His Gln
342 1               5                   10
345 <210> SEQ ID NO: 13
346 <211> LENGTH: 15
347 <212> TYPE: PRT
348 <213> ORGANISM: Artificial Sequence
350 <220> FEATURE:
351 <223> OTHER INFORMATION: tag
353 <400> SEQUENCE: 13
355 Met Lys His Gln His Gln His Gln His Gln His Gln His Gln Gln
356 1               5                   10                  15
359 <210> SEQ ID NO: 14
360 <211> LENGTH: 10
361 <212> TYPE: PRT
362 <213> ORGANISM: Artificial Sequence
364 <220> FEATURE:
365 <223> OTHER INFORMATION: tag
367 <400> SEQUENCE: 14
369 Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
370 1               5                   10
373 <210> SEQ ID NO: 15
374 <211> LENGTH: 8
375 <212> TYPE: PRT
376 <213> ORGANISM: Artificial Sequence
378 <220> FEATURE:
379 <223> OTHER INFORMATION: tag
381 <400> SEQUENCE: 15
383 Asp Tyr Lys Asp Asp Asp Asp Lys
384 1               5
387 <210> SEQ ID NO: 16
388 <211> LENGTH: 9
389 <212> TYPE: PRT
390 <213> ORGANISM: Artificial Sequence
392 <220> FEATURE:
393 <223> OTHER INFORMATION: tag
395 <400> SEQUENCE: 16
397 Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
398 1               5
```

VERIFICATION SUMMARY DATE: 03/13/2002
PATENT APPLICATION: **US/10/003,496** TIME: 10:30:08

Input Set : **A:\PTO_MS.txt**
Output Set: **N:\CRF3\03132002\J003496.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date